

Appln. No. 09/744,605

Amd. dated July 14, 2004

Reply to Office Action of March 15, 2004

REMARKS

The Office Action and the cited and applied references have been carefully reviewed. No claim is allowed. Claims 12-19, 21, 24, and 25 presently appear in this application and define patentable subject matter warranting their allowance. Reconsideration and allowance are hereby respectfully solicited.

Claim 20 has been objected to under 37 CFR 1.75 as being a substantial duplicate of claim 18. This objection is obviated by the cancellation of claim 20.

Claims 12-21, 24 and 25 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. This rejection is respectfully traversed.

From the specification at page 1, lines 13-33, it is clear that the terms "PML gene" and "PML protein" refer to both the PML protein and the fusion protein between PML and RAR $\alpha$ .

The disclosure in the present specification at page 4, lines 7 to 11, teaches that the expression "compound having the same biological properties of arsenic" is understood to mean any compound which, like arsenic, is an inhibitor of phosphatase and/or is capable of creating covalent adducts by binding with dithiol groups. Accordingly, there is nothing indefinite about the recited expression.

The remaining indefiniteness issues are obviated by the amendment to the claims.

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Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 24 and 25 have been rejected under 35 U.S.C. §102(e) as being anticipated by Kaltoft et al., US 2002/0001841 (priority to 60/091,084, filed July 2, 1998). This rejection is obviated by the amendment to claim 24. As amended, claim 24 is no longer drawn to a method for inducing the death of undesirable cells.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claim 21 has been rejected under 35 U.S.C. §102(b) as being anticipated by Gianni et al., Blood 91:4300-4310 (1998). This rejection is obviated by the amendment to claim 21. As amended, claim 21 no longer recites for "a substance associated with the PML protein".

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claim 21 has been rejected under 35 U.S.C. §102(a) as being anticipated by Bazarbachi et al., Blood 93:278-28 (1999) as evidenced by Chelbi-Alix et al., Leukemia 9:2027-2033 (1995). Furthermore, claims 12-14 and 16-20 and so have been rejected under 35 U.S.C. §103(a) as being unpatentable over Bazarbachi as evidenced by Chelbi-Alix and Zhu et al., PNAS, 94:3978-3983 (1997).

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Both of these two prior art rejections over Bazarbachi are obviated by the attached certified English translation of the French priority document, which perfects the claim to foreign priority. Accordingly, Bazarbachi is not available as prior art.

Reconsideration and withdrawal of the rejections are therefore respectfully requested.

Claims 12-14 and 16-21 have been rejected under 35 U.S.C. §103 as being unpatentable over He et al., *Anticancer Research* 17:3927 (1997) in view of Muller et al., *EMBO* 17:61-70 (1998), Chelbi-Alix et al., *Cell Biology* 99:17-27 (1996), Chen et al., *Blood* 88:1052-1061, and Albert et al., *Nature* 392:86-89 (1998). This rejection is respectfully traversed.

As far as applicants understand this rejection, the examiner is taking the position that the applied references suggest that the result of a combination of interferon and arsenic trioxide would lead to apoptosis of APL cells. However, apoptosis is not what is occurring in the present invention. The specification at page 7, lines 15-21, discloses:

Furthermore, whereas the cell death induced by the interferons alone exhibits the characteristics of apoptosis, the authors of the present invention observed that the synergistic association of zVAD with the interferons causes this apoptotic phenotype to disappear, the cell death then exhibiting characteristics different from those of apoptosis.

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The specification further continues on page 7, lines 22-33 and page 8, lines 3-19 to elaborate on this non-apoptotic cell death and the advantages thereof. Accordingly, the presently claimed invention cannot be made obvious by the combined disclosures and teachings of the cited and applied references.

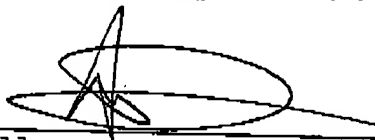
Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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